

Minutes of the
Board of Minerals and Environment Meeting
Matthew Environmental Education and Training Center
523 East Capitol
Pierre, South Dakota

10:00 a.m. CDT
October 16, 2003

CALL TO ORDER AND ROLL CALL: Chairman Richard Sweetman called the meeting to order. He appointed Chuck Monson as temporary secretary. Mr. Monson noted that a quorum was present.

BOARD MEMBERS PRESENT: Richard Sweetman, Lee McCahren, Chuck Monson, Wilbert Blumhardt, and Mike DeMersseman.

BOARD MEMBERS ABSENT: Linda Hilde, Pat Healy, Kathy Johnson, and Brian Radke.

OTHERS PRESENT: See attached attendance sheet.

APPROVAL OF MINUTES FROM SEPTEMBER 17-18, 2003, MEETING: Motion by DeMersseman, seconded by Monson, to approve the minutes from the September 17-18, 2003, Board of Minerals and Environment meeting, as mailed. Motion carried.

SURFACE MINING ISSUES: Eric Holm was administered the oath by Lee McCahren. Mr. Holm testified regarding releases of liability and surety, releases of liability, and transfers of liability (see attached matrix sheet).

Releases of Liability and Surety: Motion by Blumhardt, seconded by McCahren, to release liability and \$2,000 for Melvin Hiermeier dba Hiermeier Trucking, Custer, SD, Mine License No. 01-723, one site in Jackson County; release liability and \$1,500 for Triple Seven Ranch, Rapid City, SD, Mine License No. 95-543, one site in Custer County; release liability and \$500 for Harold L. Winburn, Houghton, SD, Mine License No. 83-107, one site in Brown County. Motion carried.

Transfers of Liability: Motion by Monson, seconded by DeMersseman, to transfer liability for one site in Hand County from Carr Towing & Construction, Redfield, SD, Mine License No. 87-349 to Morris Inc., Pierre, SD, Mine License No. 83-2; transfer liability for one site in Custer County from Quinn Construction, Inc., Rapid City, SD, Mine License No. 95-535 to Croell Redi-Mix, Inc., Sundance, WY, Mine License No. 96-604; transfer liability for one site in Hanson County from Marvin VanderPol, Mitchell, SD, Mine License No. 83-59 to James T. Goetz, Yankton, SD, Mine License No. 83-187; transfer liability for one site in Mellette County from Weatherton Contracting Company, Inc., Beresford, SD, Mine License No. 88-364 to Mellette County Highway Department, White River, SD, Mine License No. 83-193; and transfer liability

for one site in Faulk County from Spink County Highway Department, Redfield, SD, Mine License No. 83-115 to Arvin Taylor, Northville, SD, Mine License No. 03-775. Motion carried.

Releases of Liability: Motion by DeMersseman, seconded by McCahren, to release liability for Carr Towing & Construction, Redfield, SD, Mine License No. 87-349, one site in Hand County; release liability for Gratech Company, Ltd., Berthold, ND, Mine License No. 98-662, one site in Day County; release liability for Robert P. Newth, Newell, SD, Mine License No. 85-288, one site in Butte County; release liability for Oban Construction Company, Ipswich, SD, Mine License No. 83-35, one site in Edmunds County; release liability for Stava Gravel, Clear Lake, SD, Mine License No. 83-185, one site in Deuel County; release liability for Edmunds County Highway Department, Ipswich, SD, Mine License No. 83-161, one site in Edmunds County; and release liability for Jerauld County Highway Department, Wessington Springs, SD, Mine License No. 83-80, two sites in Jerauld County. Motion carried.

Update on Reclamation Activity at Site using Forfeited Surety: At its May 2003 meeting, the Board of Minerals and Environment approved a plan to reclaim licensed mine sites where reclamation bonds have been forfeited.

Mr. Holm reported that reclamation was completed on two sites for Mike Ford dba J&M Gravel, Redfield, SD, Mine License No. 98-639. At the first site, which is four miles south of Redfield, five acres were reclaimed. The highwalls were resloped and topsoil was applied to the area and seeded. At the second site, which is five miles south of Rockham, eight and one-half acres were reclaimed and topsoil has been reapplied. The landlord plans to plant crops in that area.

Mr. Holm answered questions from the board.

CONTESTED CASE HEARING TO SET THE AMOUNTS AND TYPES OF RECLAMATION AND POSTCLOSURE BONDS FOR WHARF RESOURCES (USA), INC., MINE PERMIT NOS. 356, 434, 435, AND 464: Chairman Sweetman turned the gavel over to Lee McCahren, who had been appointed as hearing chairman for this matter. Mr. McCahren opened the hearing at 10:25 a.m.

The purpose of the hearing was to consider the amount and type of reclamation bond and postclosure bond for Mine Permit Nos. 356, 434, 435, and 464.

The Department of Environment and Natural Resources recommended that the Board of Minerals and Environment, in accordance with SDCL 45-6B-27, set a new reclamation bond for Wharf Resources in the amount of \$10,730,400 in the form of cash deposit, surety, or letter of credit. The department also recommended that the board, in accordance with conditions placed on Mine Permit No. 464, set a new postclosure bond for Wharf Resources in the amount of \$8,115,055 in the form of cash deposit, surety, or letter of credit. The department has determined that this amount will cover the cost of reclamation and postclosure maintenance that the state would incur if the state were required to reclaim and provide long-term maintenance for the affected areas of the permits.

The Notice of recommendation and hearing was published September 24, 2003, in the Black Hills Pioneer and on September 25, 2003, in the Rapid City Journal. Affidavits of Publication are on file at the Department of Environment and Natural Resources, Minerals and Mining Program in Pierre. Notice of the recommendation and hearing was also mailed to Wharf Resources, Lawrence County Planning and Zoning, and the department's interested parties mailing list.

The deadline for intervention was October 10, 2003. Wharf Resources (USA), Inc. was the only party submitting a petition to intervene.

Roxanne Giedd, Assistant Attorney General, represented the Department of Environment and Natural Resources.

Dale Cockrell, Christensen, Moore, Cockrell, Cummings, & Axelberg, P.C., represented Wharf Resources (USA), Inc.

Ms. Giedd stated that the department received no intervention in this matter, other than a petition from Wharf Resources. She noted that the department considers Wharf Resources a party to the proceedings. Wharf's petition to intervene did not object to the department recommendation.

Ms. Giedd offered DENR Exhibit 1, Wharf Resources Reclamation and Postclosure Bond Hearing Briefing Document for the Board of Minerals and Environment. Ms. Giedd also offered DENR Exhibit 2, Wharf Resources Permit Nos. 356, 434, 435, and 464, including the conditions of the permits.

Both exhibits were admitted into the record.

Eric Holm, Natural Resources Engineer, DENR Minerals and Mining Program, was previously administered the oath. He testified that mining law and permit conditions allow the Board of Minerals and Environment to periodically adjust the reclamation bond amounts. Wharf's Permit No. 464 allows DENR and the board to adjust the reclamation surety from time to time. Wharf's conditions require annual bond reviews. Condition No. 2 in Permit No. 464 allows Wharf to submit reclamation bonds in installments and the department to review Wharf's annual calculations. Wharf has been submitting the bond in installments for the Trojan Pit facility. At the end of each year Wharf lets the department know where they will be in the pit, and the department adjusts the bond accordingly. As a result, the reclamation bond has been adjusted annually since 2001 to account for additional land disturbance, water treatment, and inflation.

Mr. Holm stated that in 1998, the board set Wharf's postclosure bond at \$1,000,000. Wharf was required to submit \$500,000 prior to expansion operations commencing and the rest paid incrementally on an annual basis. The 1998 amount was based on possible long-term nitrate treatment. By condition, the postclosure bond amount and annual payments can be adjusted. Mr. Holm stated that the current postclosure bond is \$601,746.

Regarding the current site status, Mr. Holm testified that mining in the Foley and Portland pits is completed and the pits are being backfilled. The Trojan Pit is scheduled to be completed in

2006. The Trojan Waste Rock Depository is completed and in the final stages of reclamation. The water is currently being treated for nitrates, selenium, and arsenic.

Mr. Holm reported that Wharf's current reclamation bond is \$12,411,350, which includes a \$12,000,000 Letter of Credit and \$411,350 in Certificates of Deposit. Wharf's current postclosure bond is a \$601,747 Certificate of Deposit. Wharf's Cyanide Spill Bond is a \$405,000 Certificate of Deposit. The total of all Wharf bonds is \$13,418,097.

Reclamation Bond

The recommended new reclamation bond amount is \$10,730,400. Staff calculated a \$1,680,950 decrease in the bond. The reasons for the bond reduction are: 1) The Trojan Waste Rock Facility is reclaimed; 2) There is a decrease in earthmoving costs in the Foley Pit due to more pit backfill; and 3) A decrease in water treatment costs during the closure period due to a change from reverse osmosis to biological treatment.

Mr. Holm stated that the reclamation bond calculation is based on site conditions at the end of 2003. The recalculated bond is based on a five-year closure period. Year 1 consists of holding costs, water treatment, heap neutralization, and some earthwork. Years 2 and 3 consist of the main earthmoving activities, continued water treatment, and the completion of pad neutralization. Years 4 and 5 consist of care and maintenance and continued water treatment. Site activities after Year 5 are addressed in the postclosure bond.

Mr. Holm explained the water treatment requirements for the closure period. Cyanide neutralization on the heap leach pads and process ponds needs to be done. Also, nitrate treatment needs to be done in the process area, Ross Valley and Reliance pits. Selenium and arsenic needs to be removed from the Reliance and Ross Valley depositories. The water in the ponds also needs to be treated.

Wharf Resources has two denitrification plants - the process area plant treats process solution and the Ross Valley plant treats water from the Reliance Waste Facility and Ross Valley. These plants utilize bacteria in an anaerobic environment. The bugs metabolize the oxygen from nitrate and release nitrogen gas.

For selenium and arsenic, Wharf constructed selenium treatment cells as part of the Ross Valley treatment plant. The plant uses bacteria to biologically reduce selenium after nitrate is removed. The selenium precipitates out with the bacterial action. These treatment cells also remove arsenic.

Mr. Holm showed a map of the treatment plant and major facilities. He also showed pictures of the Ross Valley Treatment Plant and the Ross Valley Rooster Pond.

Postclosure Bond

Mr. Holm reported that the treatment facilities will remain throughout the postclosure period. Staff calculated a new postclosure bond of \$8,115,055. Wharf's existing postclosure bond is

\$601,747 in the form of a Certificate of Deposit. The net increase to the postclosure bond is \$7,513,308.

The original \$1,000,000 postclosure bond estimate only included nitrate treatment. Treatment costs now include selenium and arsenic treatment. Models developed by Wharf show that nitrate, selenium, and arsenic treatment will last 50 years after the closure period. Mr. Holm noted that staff asked the Bureau of Reclamation to develop a third party postclosure bond estimate. Staff utilized the Bureau of Reclamation's expertise in calculating reclamation costs and their knowledge of water treatment costs. Staff incorporated pertinent and applicable costs from the Bureau's estimate into the state's postclosure bond calculation.

The department based its cost on perpetual water treatment calculations developed by the state of Montana. The department used the present worth analysis of annual costs with adjustments for inflation. The postclosure bond is the sum of annual present worths. Mr. Holm noted that the 51-year postclosure period is based on Wharf's models. Postclosure Year 1 begins at the end of closure Year 5.

Mr. Holm discussed the postclosure bond costs. These costs include operation and maintenance, water treatment at the Ross Valley Plant, utilities and miscellaneous, and the annual postclosure indirect costs. Mr. Holm also explained the inflation adjustments and the present worth analysis.

Mr. Holm reviewed the proposed Wharf bonds:

Reclamation Bond	\$10,730,400
Postclosure Bond	\$ 8,115,055
"Cyanide Spill Bond"	\$ <u>405,000</u>
Grand total of all bonds	\$19,250,455

Staff requested that the board set the amounts of the reclamation bond and postclosure bond, determine the instrument of each bond (cash deposit, surety bond, letter of credit, or combination), and set the deadline for Wharf to submit the additional postclosure bond.

Mr. Holm answered questions from the board.

John Begeman, vice president of Western Operations for Wharf Resources, was administered the oath by Lee McCahren. He testified that Wharf Resources intends to post the reclamation bond and the postclosure bond in the form of two separate Letters of Credit from Scotia Bank, which is the same bank that currently provides the Letter of Credit for Wharf's reclamation bond.

Mike DeMersseman asked Mr. Begeman to explain the biological method of treating the water.

Mr. Begeman stated that Wharf Resources uses the biological treatment method because it is more cost effective. He stated that the previous bond calculation was based on using a reverse osmosis unit. With the biological treatment method, the bacteria adheres to a medium, such as coarse rock or carbon, then it pulls out nitrate. The bacteria pulls the oxygen molecules out of

the nitrate and respire it off as nitrogen gas. So there is not a separate waste to deal with, as is the case with the reverse osmosis method. The biological treatment plant converts the problem with nitrate into nitrogen gas. Mr. Begeman said Wharf has been using the biological treatment plant since 1997.

Mr. Begeman stated that aside from being cost effective, biological treatment solves the problem by breaking down the bad element into a reasonable element.

Mr. Begeman answered questions from the board.

Mr. McCahren stated that he has never been fond of the fact that the board would have to charter an airplane to collect a bond, if the need were to arise. He noted that Wharf's last Letter of Credit was issued by a bank in Toronto.

Mr. Begeman stated that these two Letters of Credit will be issued by the bank of Nova Scotia in Toronto. The bonds held with local banks will eventually be extinguished, so only Letters of Credit exist.

This concluded testimony. Mr. McCahren requested board action.

Motion by Blumhardt, seconded by DeMersseman, to accept the department's recommendation to set Wharf Resources' reclamation bond amount at \$10,730,400 and postclosure bond amount at \$8,115,055.

Board Discussion

Mr. McCahren again expressed concern regarding Wharf securing the bonds from a bank in Canada.

Mr. DeMersseman stated that the cost of a Letter of Credit is quite high. He asked whether a Letter of Credit could be guaranteed. If so, could a Letter of Credit be established, at or near the same cost, in the United States in case the state of South Dakota had to go to court.

Mr. Sweetman noted that the last Letter of Credit was with the Bank of Nova Scotia through the New York Branch, so there is not an international jurisdictional issue.

Mr. Cockrell said it is anticipated that these two Letters of Credit will also be through the New York Branch.

The motion carried.

Ms. Giedd stated that she had prepared the Findings of Fact, Conclusions of Law and Order. The Order specifically includes the provision that the form of the sureties, the Letters of Credit, be presented to the board for acceptance.

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October 16, 2003, Meeting Minutes

Mr. Cockrell noted that he had reviewed the Findings of Fact, Conclusions of Law and Order and had no objections.

Mr. McCahren orally reviewed the Findings of Fact, Conclusions of Law and Order.

Motion by DeMersseman, seconded by Monson, to accept the Findings of Fact, Conclusions of Law and Order, and to authorize Mr. McCahren to execute the Order. Motion carried.

The board will consider approval of the Letters of Credit at its next meeting.

Mr. McCahren declared the hearing closed. He turned the gavel back over to Mr. Sweetman.

OTHER BUSINESS: Jack Cole, Lynn Namminga, representing Spearfish Canyon Preservation Trust, and Ramona Hultman, representing Citizens to Restore Bear Butte Creek, all from Lawrence County, gave a presentation regarding their opinions of heap leach mining, reclamation, and the water quality and quantity on Bear Butte Creek and Spearfish Creek.

NEXT BOARD MEETING: The next Board of Minerals and Environment meeting is November 20, 2003, at the Matthew Environmental Training Center, Pierre.

ADJOURN: Chairman Sweetman declared the meeting adjourned.

Kelly Johnson 11/4/04
Secretary Date

Wilbert Elmendorf 1-16-04
Witness Date

ATTENDANCE SHEET

BOARD OF MINERALS AND ENVIRONMENT MEETING

Location Matthew Training Center
PierreDate 10-16-03

NAME (PLEASE PRINT)

ADDRESS

REPRESENTING

Eric HolmPierreDENRChet BrokawPierreAssociated PressJohn BegemanLeadWharfStan MichalsGFP-R.C.→Mike CepakPierreDENRDale CocurellKalispell, MTWharfCAROL ISOERNER, SPEESHNMJeff FnerstenanSpearfishWharfRamona HiltmanBoulder CanyonCitizens to Restore ^{Bear} Butte ^{Creek}Jack R. ColeSPEARFISH CANYONPERRY PEAK CITYLynn Nammenjia12 Lincoln, DWASpearfish Canyon Preservation Tri

South Dakota Board of Minerals & Environment

October 16, 2003

License/Permit Holder	License	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
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Permit

Releases of Liability and Surety:

Melvin Hiermeier dba Hiermeier Trucking Custer, SD	01-723		\$2,000	11407	First Western Bank, Custer	Release liability and \$2,000.
		723001	S1/2 Section 2; T1S-R19E, Jackson			

Triple Seven Ranch Rapid City, SD	95-543		\$1,500	11741	First National Bank, Pierre	Release liability and \$1,500.
		543001	NW1/4 Section 20; T4S-R8E, Custer			

Harold L. Winburn Houghton, SD	83-107		\$500	1116	Wells Fargo Bank, Aberdeen	Release liability and \$500.
		107001	NE1/4 Section 22; T127N-R64W, Brown			

Transfer of Liability:

Carr Towing & Construction Redfield, SD	87-349		\$1,220 \$661 \$649	901737 902424 902551	Heartland State Bank, Tulare Heartland State Bank, Tulare Heartland State Bank, Tulare	Transfer liability.
		349003	SE1/4 Section 9; T116N-R67W, Hand			

Transfer to:

Morris Inc. Pierre, SD	83-2		\$20,000	037S 103597878	Travelers Casualty & Surety Company of America
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South Dakota Board of Minerals & Environment

October 16, 2003

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Transfers of Liability:						
Quinn Construction Inc. Rapid City, SD	95-535	535007	\$20,000	55-173881	United Fire & Casualty Company	Transfer liability.
Transfer to:			NE1/4 Section 15; T6S-R6E, Custer			
Croell Redi-Mix, Inc. Sundance, WY	96-604		\$20,000	SD 3480	Merchants Bonding Company	
Marvin VanderPol Mitchell, SD	83-59	59006	\$25,000	0350 08 069675	Wausau Underwriters Insurance Company	Transfer liability.
Transfer to:			NW1/4 Section 9; T102N-R59W, Hanson			
James T. Goetz Yankton, SD	83-187		\$2,500 \$2,000 \$3,000	41-15-66 30-20-06 30-22-07	New Hampshire Insurance Company	
Weather-ton Contracting Co. Inc. Beresford, SD	88-364	364032	\$20,000	141551847	Continental Casualty Company	Transfer liability.
Transfer to:			SW1/4 Section 27; T41N-R27W, Mellette			
Mellette County Highway Department White River, SD	83-193		EXEMPT	NA	NA	

South Dakota Board of Minerals & Environment

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License/Permit Holder	License Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
<u>Transfer of Liability:</u>						
Spink County Highway Department Redfield, SD	83-115		EXEMPT	NA	NA	Transfer liability.
		115015	NE1/4 Section 33; T120N-R66W, Faulk			
Transfer to:						
Arvin Taylor Northville, SD	03-775		\$1,000	78462	First National Bank, Pierre	
<u>Releases of Liability:</u>						
Carr Towing & Construction Redfield, SD	87-349		\$1,220	901737	Heartland State Bank, Tulare	Release liability.
			\$661	902424	Heartland State Bank, Tulare	
			\$649	902551	Heartland State bank, Tulare	
		349004	SE1/4 Section 10; T115N-R66W, Hand			
Gratech Company Ltd. Berthold, ND	98-662		\$20,000	2 57 66 20	Great American Insurance Company	Release liability.
		662002	Section 21; T22N-R54W, Day			
Robert P. Newth Newell, SD	85-288		\$9,500	55-95458	United Fire & Casualty Company	Release liability.
		288002	E1/2 NW1/4 Section 10; T8N-R5E, Butte			

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<u>License/Permit Holder</u>	<u>License/ Permit</u>	<u>Site No.</u>	<u>Surety Amt.</u>	<u>Surety No.</u>	<u>Surety Company/Bank</u>	<u>DENR Recommendation</u>
Releases of Liability:						
Oban Construction Company Ipswich, SD	83-35		\$500 \$500	11368 20815	Ipswich State Bank, Ipswich First National Bank, Pierre	Release liability.
		35005	Section 10; T122N-R73W, Edmunds			
Stava Gravel Clear Lake, SD	83-185		\$2,500 \$500	16980 26193	Deuel County National Bank, Clear Lake Deuel County National Bank, Clear Lake	Release liability.
		185015	SW1/4 Section 17; T115N-R47W, Deuel			
Edmunds County Highway Department Ipswich, SD	83-161		EXEMPT	NA	NA	Release liability.
		161008	SW1/4 Section 5; T124N-R69W, Edmunds			
Jerauld County Highway Department Wessington Springs, SD	83-80		EXEMPT	NA	NA	Release liability.
		80045	NE1/4 Section 3; T106N-R65W, Jerauld			
		80047	SE1/4 Section 1; T108N-R64W, Jerauld			

South Dakota Board of Minerals & Environment

October 16, 2003

License/Permit Holder	License/ Permit	Site No.	Surety Amt.	Surety No.	Surety Company/Bank	DENR Recommendation
Update on Reclamation Activity at Site Using Forfeited Surety:						
Mike Ford dba J & M Gravel Redfield, SD	98-639		\$0	NA	NA	
		639001	S1/2 Section 3; T115N-R64W, Spink			
		639002	SE1/4 Section 31; T116N-R66W, Hand			
Recommendation to Set Reclamation Bond Amount and Type:						
Wharf Resources (USA), Inc. Lead, SD	356, 434, 435, & 464		\$12,000,000	Irrevocable Letter of Credit S18572/191556	Scotia Bank, Toronto, Ontario Canada	Set reclamation bond amount at \$10,730,400.
			\$11,400	0457013703	Wells Fargo Bank, Lead	
			\$68,700	0457013508	Wells Fargo Bank, Lead	
			\$125,300	30026303	First Western Bank, Spearfish	
			\$180,000	30040803	First Western Bank, Spearfish	
			\$25,950	30037103	First Western Bank, Spearfish	
Recommendation to Set Post Closure Bond Amount and Type:						
Wharf Resources (USA), Inc. Lead, SD	356, 434, 435, & 464		\$601,747	55096	First National Bank/Miners & Merchants Branch, Lead	Set post closure bond amount at \$8,115,055.